Claims

1. A monoclonal antibody or fragment thereof, characterized in that it binds to the capsid of an adeno-associated virus (AAV) and prevents the binding of the virus to the virus receptor of an original target cell.

2. The antibody according to claim 1, wherein the antibody is an antibody originating from an animal, a human or humanized antibody, a chimeric antibody, a single-chain antibody or a fragment thereof.

3. The antibody or fragment thereof according to claim 1 or 2, wherein the AAV is AAV-2, AAV-3, AAV-4, AAV-5 or AAV-6.

4. The antibody according to any one of claims 1 to 3, which binds to common sequences of V1, VP2 or VP3.

5. The antibody or fragment thereof according to claim 4, which binds to the capsid proteins of AAV-2 within the region of amino acids 449 to 600 (based on VP-1).

6. The antibody according to any one of claims 1 to 5, which is C24-B (deposited with DSMZ [German-Type Collection of Microorganisms and Cell Cultures], Braunschweig, Germany, under ACC 2369 on August 19, 1998) or C37-B (deposited with DSMZ Braunschweig under ACC 2370 on August 19, 1998).

7. The antibody or fragment thereof according to any one of claims 1 to 6, further characterized in that it is fused with a desired receptor ligand.

8. The antibody or fragment thereof according to claim

7, wherein the receptor ligand is

- folate,
- fibroblast growth factor (FGF),
- RGD peptide motives which bind to α_v integrins,
- asialoglycoproteins (ASGP),
- erythropoietin,
- epidermal growth factor (EGF), or
- an antibody which is directed against a desired receptor, e.g.:
- anti-human secretory component Fab fragment,
- anti-CD19.

9. A hybridoma producing an antibody according to any one of claims 1 to 8.

10. An AAV vector, characterized in that an antibody or a fragment thereof according to any one of claims 1 to 8 is bound to the capsid and can no longer bind it to the virus receptor of the original target cell but optionally to the virus receptor of a desired target cell.

11. The AAV vector according to claim 10, characterized in that it is derived from AAV-2, AAV-3, AAV-4, AAV-5 or AAV-6.

12. A process for the targeted genetic transfer, characterized in that an AAV vector according to claim 10 or 11 is used as a vehicle for the nucleic acid sequences to be introduced into the desired target cell.